

دائرة البلدية والتخطيط

Municipality & Planning Department

إدارة الصحة العامة

Public Health Department



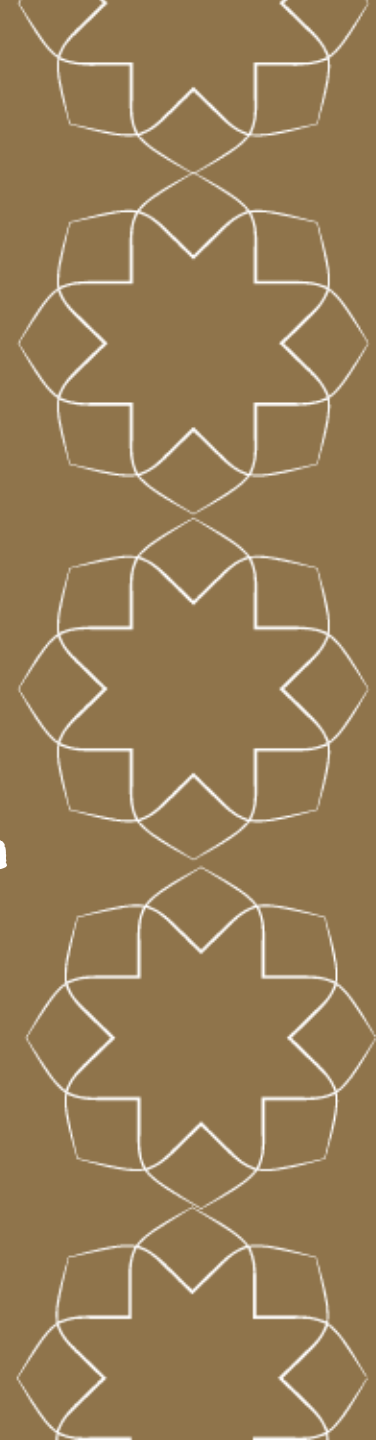
قسم الرقابة الغذائية

Food Control Section

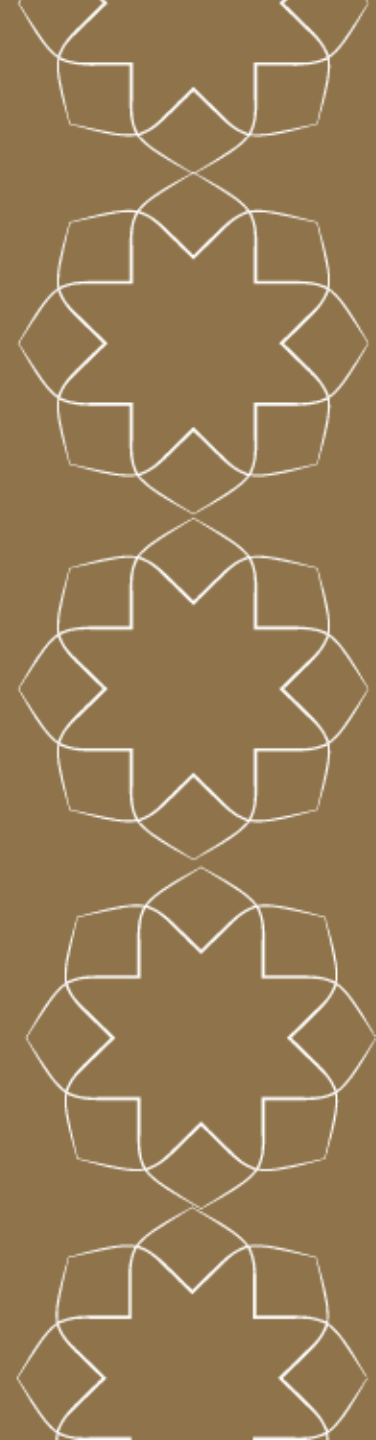


FOOD SAFETY L2 (FOOD STORAGE)

Presented By : *Dr. Ahmed Fawzy Moustafa*



1. INTRODUCTION



Introductions

- Trainer
 - **Dr . Ahmed Fawzy Moustafa**
(Ajman Municipality & Planning Department)
(Food Control Section)
- Trainees
 - Can everyone give a brief introduction to themselves & why you are here.

Training Plan

- Timings for today
 - We have Only 90 Minutes
- So :

Course Aims

- The aims of this course are to provide:
 - an overview of the Ajman Municipality & Planning Department (Food Control Section)
 - Ajman Public Health Program (APHP) .
 - training in Good Hygiene Practice (GHP)
 - an environment for discussion and sharing best practice

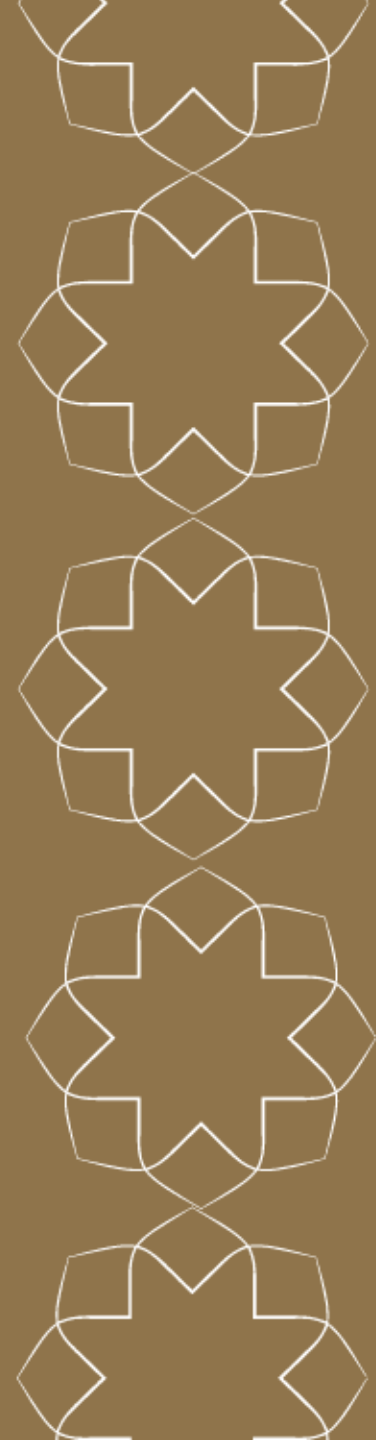
Contents

- An Introduction to Food Safety
- Developing the Good Hygiene Practice (GHP) System
 - Essential Food Safety
 - Managing Food Safety
 - Hand washing
 - Operational Hygiene
 - Personal Hygiene
 - Food Storage
 - Cooking
 - Chilling
 - Cleaning
 - Pest Control



2. ESSENTIAL FOOD SAFETY

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Food Borne Disease

- Disease caused by consuming contaminated food or water
- Who is at risk?
 - Everyone is at risk
 - Vulnerable groups' are at greater risk
 - The elderly
 - Young children
 - People with illnesses



Food Borne Disease

- What happens?
- This can be very different
 - Can include vomiting, diarrhoea and fever
 - Often lasts a few days... but can be longer
 - Can start immediately or be delayed days or weeks
 - In some cases can be fatal



Q&A: Hazards

- What hazards do you worry about in your Home?
- What do you think is the biggest cause of food borne disease in your home ?
 - Spend 2 minutes discussing this in teams
 - Then share your ideas with the group.
 - A summary of hazards will follow...

Chemical Hazards

- Chemical hazards
 - E.g. cleaning and pest control chemicals
 - They must be used and stored with care
- Allergens
 - Naturally occurring chemicals in certain foods
 - e.g. nuts, seafood, dairy
 - Affect individual people with specific allergies
 - You should be aware of major allergens and communicate ingredients correctly



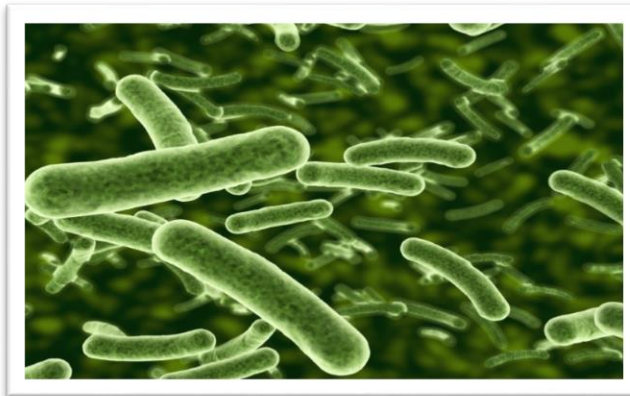
Physical Hazards

- Physical hazards
 - E.g. hair, glass, stones, insects
- To reduce the risks of contamination:
 - Food must be stored and prepared with care
 - Areas must be kept clean and well maintained



Microbiological Hazards

- Microbiological hazards are the most important hazard group for much of the food industry
- Preventing the contamination and growth of microbiological hazards is the focus of this course



These are bacteria
– they are over
10,000 times
smaller in real life

What are Bacteria?

- Bacteria are organisms that are too small to be seen without a microscope (micro-organisms)
 - Some are harmless
 - Some cause food to spoil
- Some are dangerous – *pathogenic bacteria*.
 - E.g. *Salmonella*



Have you heard of
any other bacteria?

Bacteria in the Kitchen

- How can bacteria get into your house?
- Did you think of these six answers?
 - Soil / dust (on packaging, etc.)
 - Pests and pets
 - Water (non potable water)
 - Raw food
 - People (skin, hair, clothing, etc.)
 - Waste (food packaging, etc.)



- What enables (most) bacteria to grow?
- Did you think of these five answers?

Food

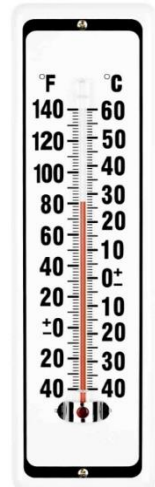
Acidty

Time

Temperature

Oxygen

Moisture



Cross Contamination

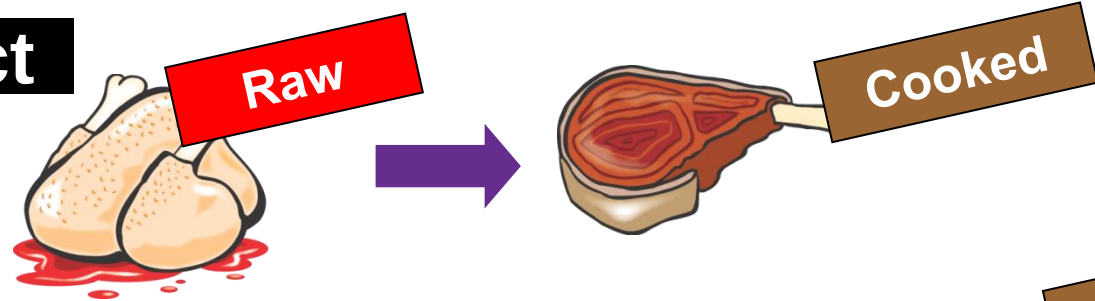
Cross Contamination is the transfer of harmful bacteria from raw food items to high risk/cooked items. This spread or transfer could be direct, indirect or by dripping.



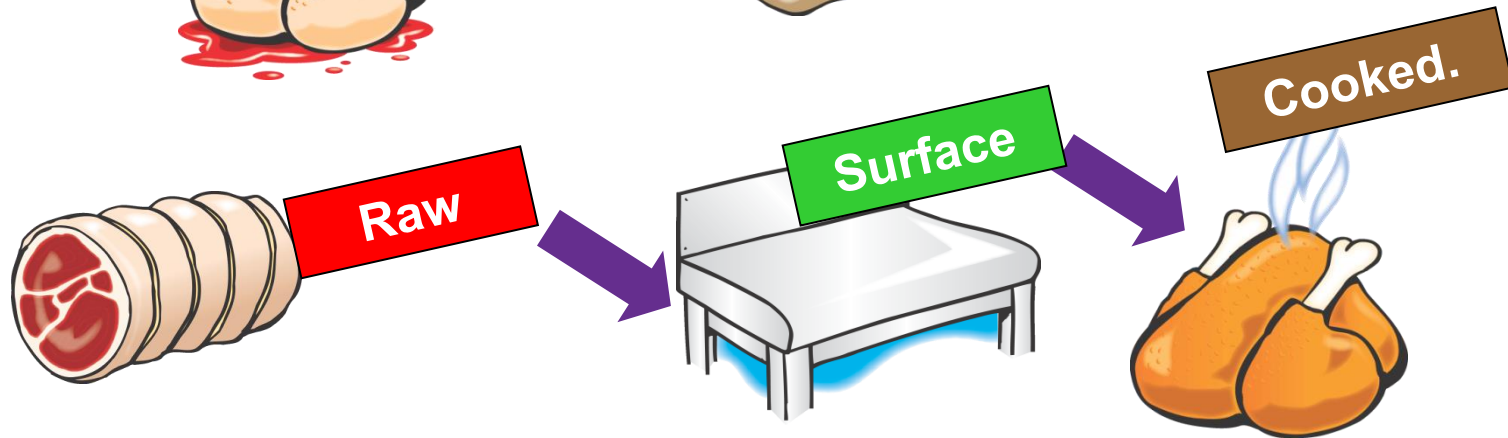
Contamination is the presence of any objectionable or harmful thing in the food making it unsafe for the consumer.

Types of Cross Contamination

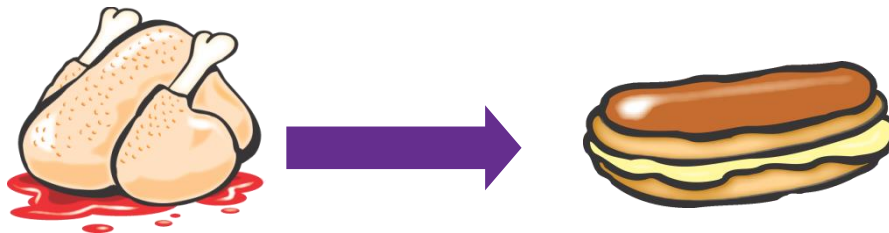
Direct contact



Indirect

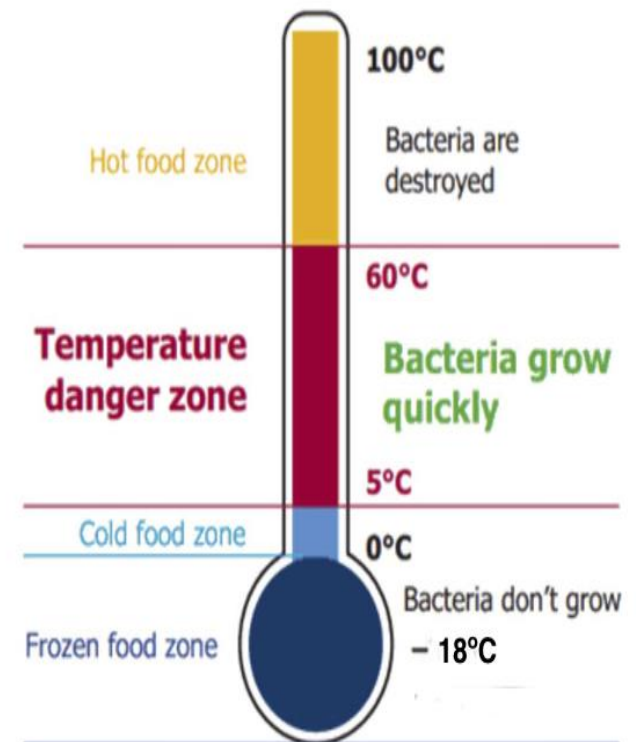


Drip

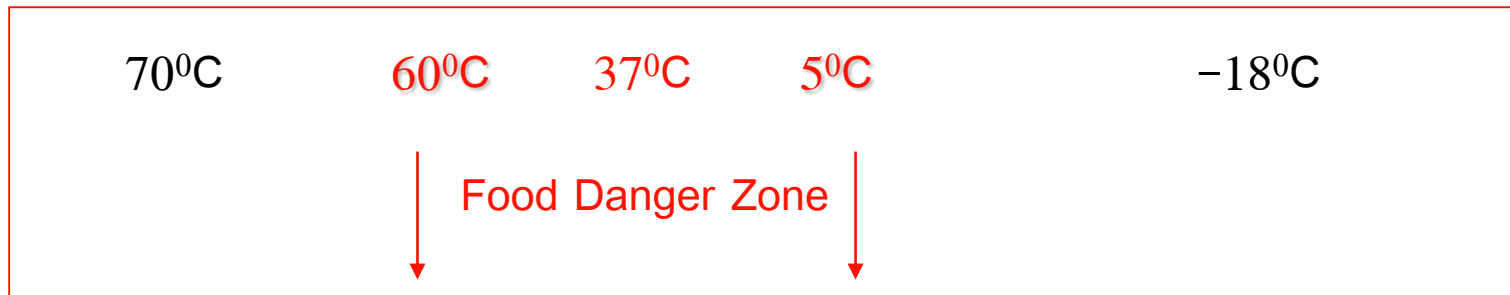


Temperature Control

- High temperatures stop bacteria growing
 - Hot holding stops them growing (e.g. 60°C)
 - *Cooking kills them (e.g. 70 °C)*
- Cold temperatures stop bacteria growing
 - Chillers stop most of them growing (e.g. 5°C)
- The ‘Danger zone’ represents the warm temperatures in-between
 - NB Bacteria grow fastest at around 37°C

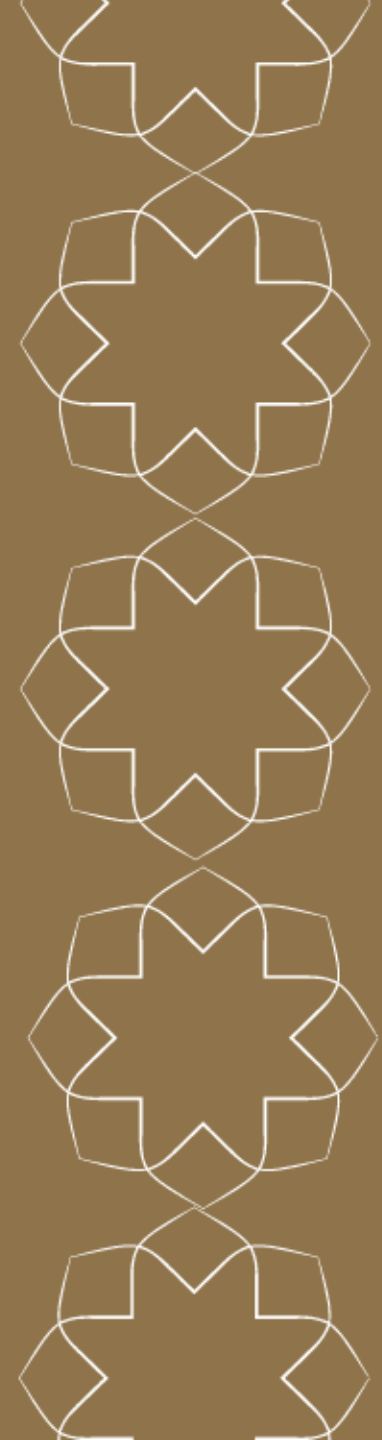


Temperature Control



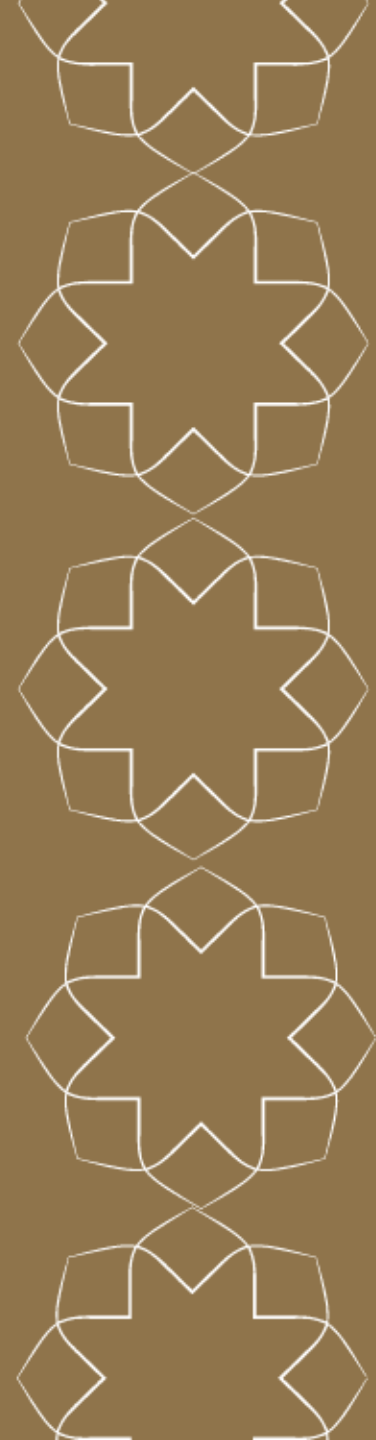
3. MANAGING FOOD SAFETY

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1. HAND WASHING

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Hand washing

- Hands are a common source of cross contamination
 - They can easily become contaminated
 - They can easily spread bacteria throughout a business



Handwashing

When to wash Hands?

Before:

- ✓ Before starting to work with/preparing food
- ✓ Before touching ready to eat food
- ✓ Before eating
- ✓ Before (and after) caring to someone sick



Handwashing

After :

- ✓ After Every Break
- ✓ After Smoking
- ✓ After handling raw food or waste
- ✓ Using the toilet
- ✓ After cleaning surfaces or equipment



Hand Washing Example



2. OPERATIONAL HYGIENE

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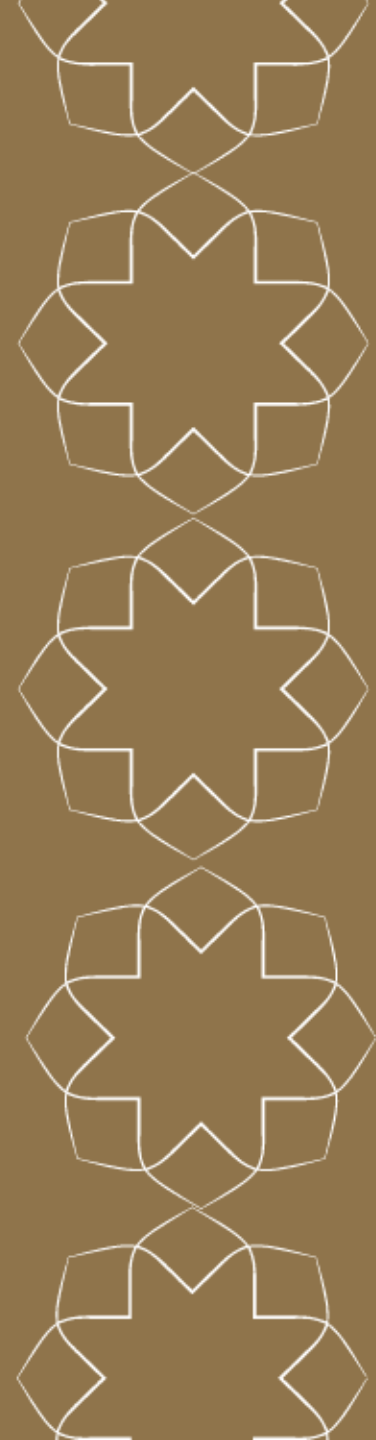
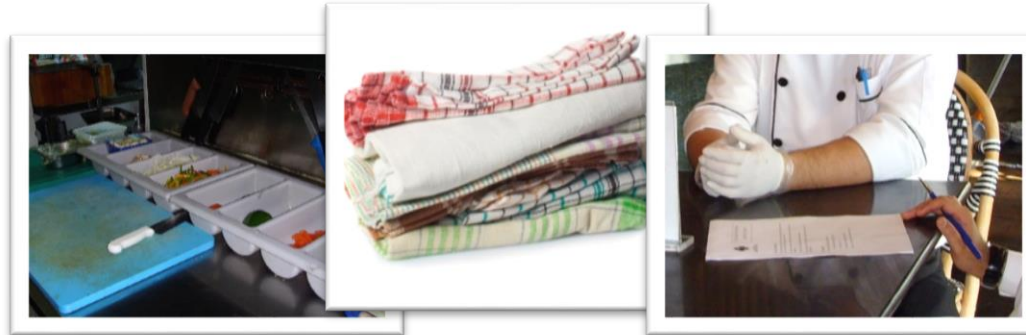


Photo Quiz

- The following photo quiz has five questions.
- In teams, you have 1 minute to quickly discuss and answer each question.
 - Always give a reason why (for an extra point)
- We will then discuss the answers.



1



Question: In most food preparation areas in the Kitchen , is the use of this type of cloth safe or unsafe?

1



Answer: UNSAFE – in most situations. These cloths are very common sources of contamination. Paper towels are safer for most tasks (except handling hot items).

Operational Hygiene Summary

- Commonly used items (e.g. cloths and chopping boards) are often highly contaminated with bacteria
- Cloths
 - Single-use cloths are best
 - They are thrown away after each task
 - Thick cloths are only necessary for a small number of tasks (e.g. holding hot items)



Clothes / Paper Towels

Use single-use clothes or paper towels for the following jobs:

- Wiping surfaces
- Mopping up spills
- Wiping Hands
- Wiping sides of dishes before serving
- Drying ingredients



2

Question: Are gloves always safe?



2

Answer: No they are NOT always safe. Gloves can cause contamination if they are not very carefully managed. Here they are worn outside!

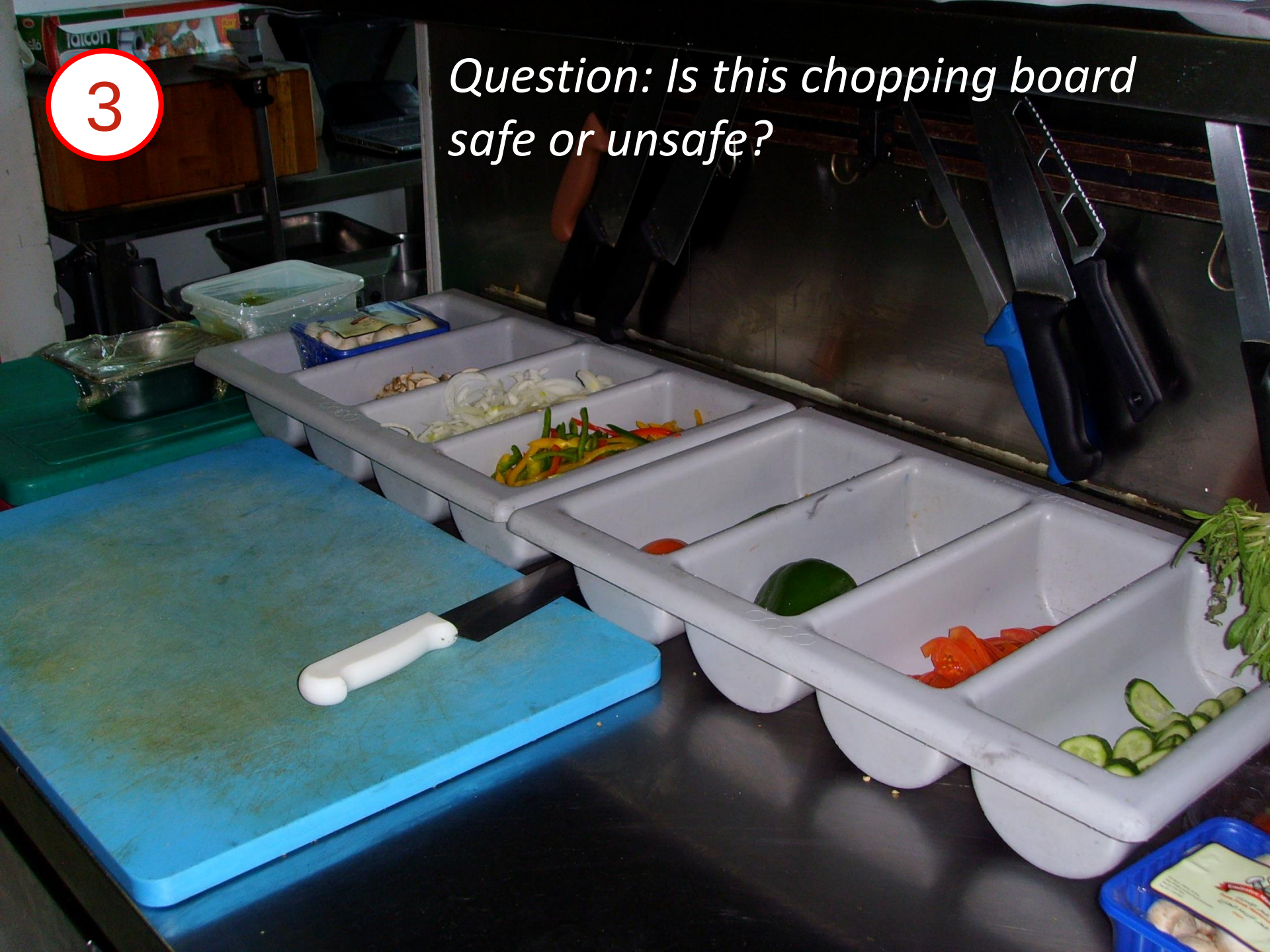
Operational Hygiene Summary

- Thoroughly clean hands are safe
 - Businesses can use gloves as an 'extra' safety step
 - e.g. when handling HR food
- BUT gloves are only safe if:
 - hands are clean first
 - gloves are changed regularly
- Other options to reduce hand contact: tongs, paper, etc.



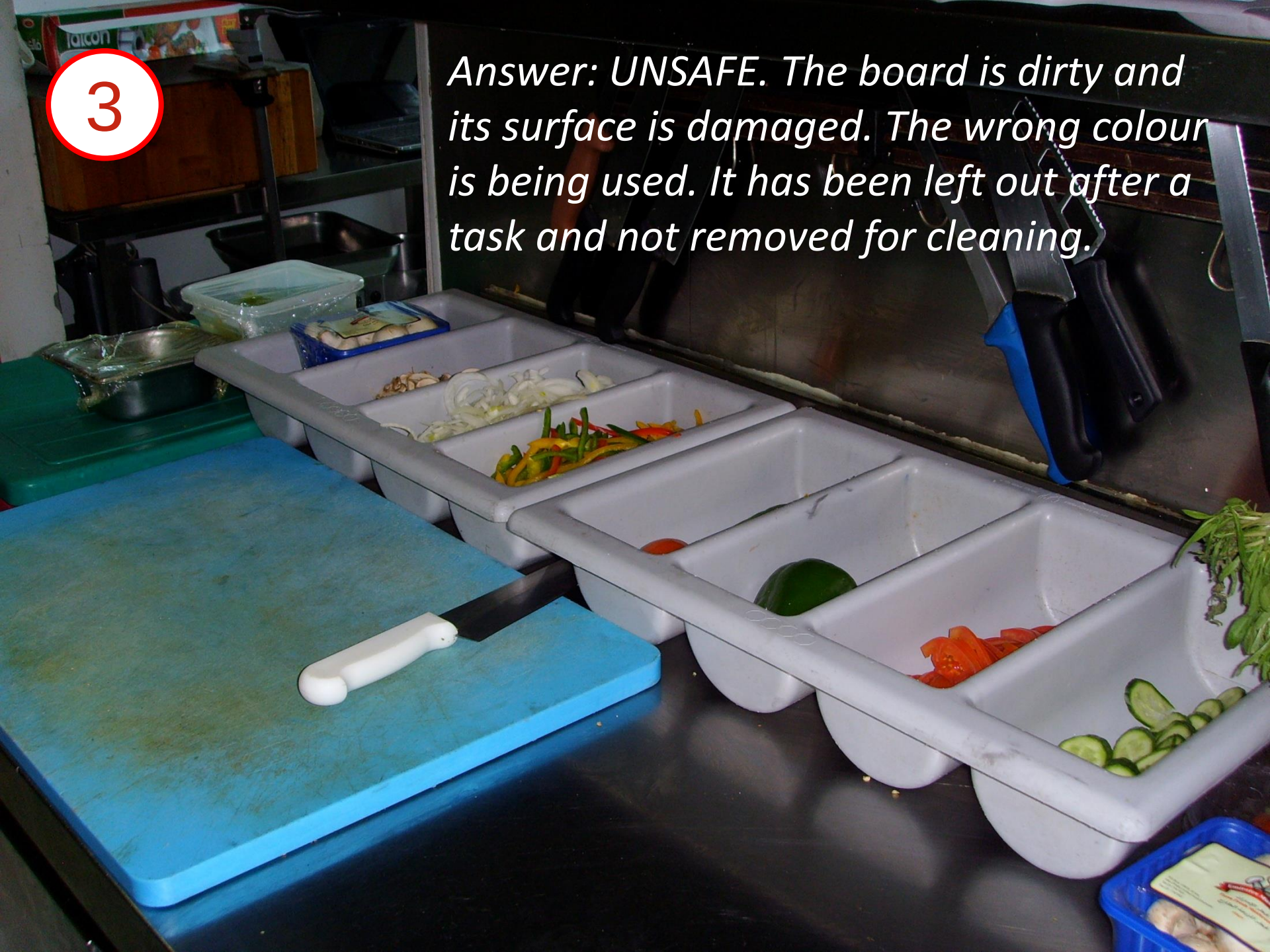
3

Question: Is this chopping board safe or unsafe?



3

Answer: UNSAFE. The board is dirty and its surface is damaged. The wrong colour is being used. It has been left out after a task and not removed for cleaning.



Operational Hygiene Summary

- Clean white chopping boards are safe to use
- Colour-coded boards **do not guarantee safety**
 - They can help to reduce contamination
 - BUT only if they are used and managed correctly
- ALL chopping boards must be thoroughly washed, disinfected and dried between tasks
 - Purchase enough so that dirty ones are not re-used



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4

Question: Which food is most likely to CAUSE cross contamination?



A. Cooked red meat



B. Raw poultry



C. Crisps



D. Chicken sandwich

4

Answer: B. This food is most likely to contain bacteria that will contaminate other foods.



A. Cooked red meat



B. Raw poultry



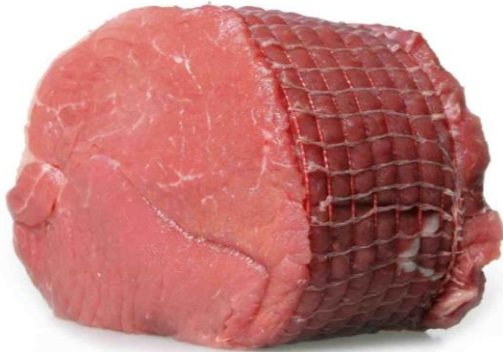
C. Crisps



D. Chicken sandwich

5

Question: Which food is most AT RISK from cross contamination (i.e. a high risk food)?



A. Raw red meat



B. Raw poultry



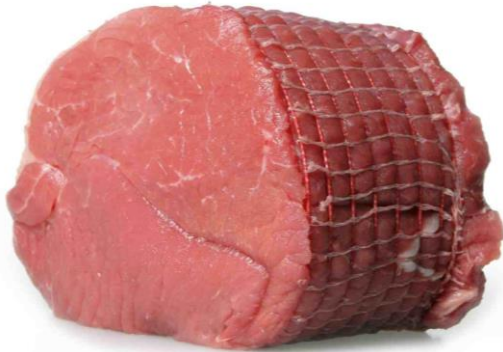
C. Crisps



D. Chicken sandwich

5

*Answer: D. This is a high risk 'ready to eat' food.
It is most at risk from contamination from other foods.*



A. Raw red meat



B. Raw poultry



C. Crisps



D. Chicken sandwich

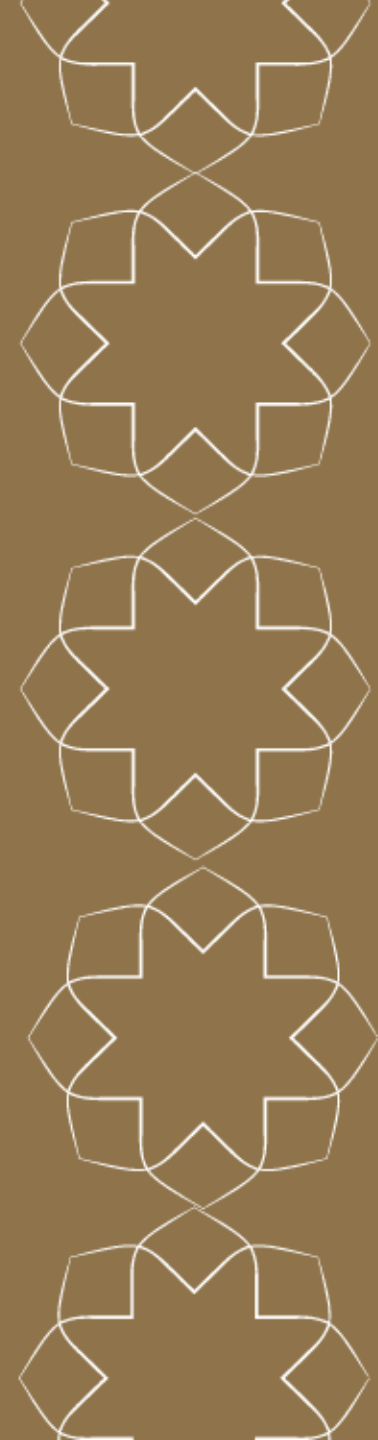
Operational Hygiene Summary

- High risk food:
 - Needs temperature control
 - Bacteria will grow quickly in these foods in warm temperatures
 - ‘Ready to eat’
 - Bacteria in these foods will not be killed by cooking / re-heating
 - Often high level of handling
 - Increases risk of contamination
 - Often prepared at room temperature
 - Increases risk of bacterial growth



3. PERSONAL HYGIENE

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Team Activity: Personal Hygiene

- Think about what is the important Point for personal hygiene
 - That you will conduct before handling the food
 - Identify the 6 most important points.
 - Identify why each Point is important for food safety
- Work in your teams
 - After 10 minutes, we will create a list together. Each group will add one check until the list is complete.



Personal Hygiene Checklist

- Did your list include..?
 1. Hands (cleanliness, no cuts)
 2. Nails (short, clean)
 3. Jewellery (including watches)
 4. Hair (tied back, covered)
 5. Clothes (clean protective clothing)
 6. Fitness for work (no illness)



Personal Hygiene Summary

- Personal Hygiene
 - Jewellery should not be worn
 - Nails should be short and clean
- Protective Clothing
 - Protective clothing should cover outdoor clothes
 - Hair should be covered.

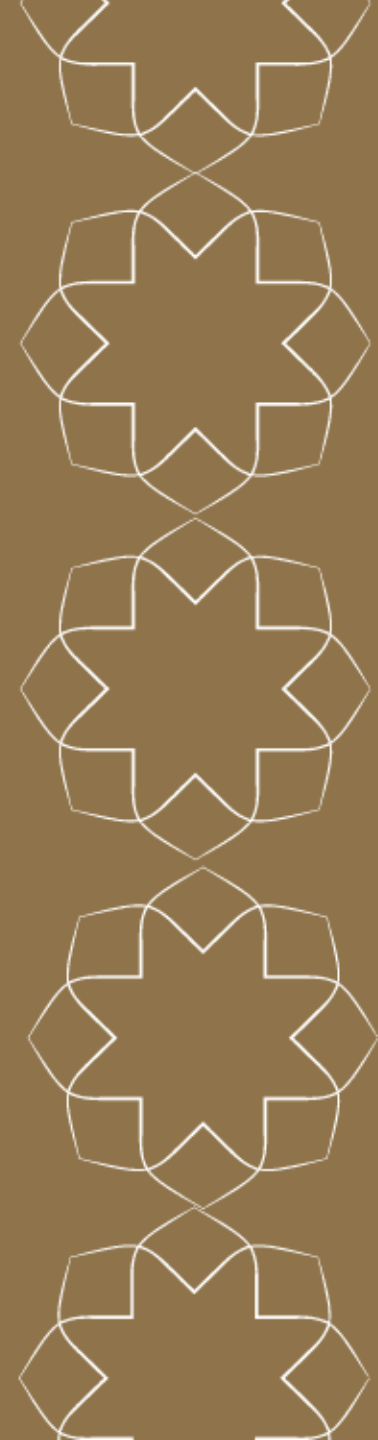


Personal Hygiene Summary

- Fitness for Handling the food
 - Bacteria grow in cuts and wounds
 - Symptoms such as sickness and fever can mean that employees are **highly contagious**
 - You must put this point in your consideration 'fitness for handling the food '

4. FOOD STORAGE

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Food Storage

- What are the 3 main types of food storage?
 - Dry storage
 - Cold storage
 - Frozen storage
- What temperatures should they be?
 - Cold: 5°C or below
 - Frozen: -18°C or below



Q&A: Food Storage

- Why are foods kept in cold storage?
- If food is kept cold, is it safe forever?
- If not, why not?
 - In teams, discuss these questions for 3 minutes.
 - Then share your ideas with the whole group.



Q&A: Food Storage

- Why are foods kept in cold storage?
 - Most bacteria stop growing
 - Food lasts longer and stays safer
- If food is kept cold, is it safe forever?
 - No
- If not, why not?
 - Some bacteria still grow slowly
 - That is why safe shelf life is essential
 - Check expiry dates each day
 - Remember FIFO – first in, first out!



Storage

- First In First Out
- First Expiry First Out
- Label the Food- Production, Expiry and Defrosting Start Dates.
- Do Not Serve the Food Past Shelf Life.

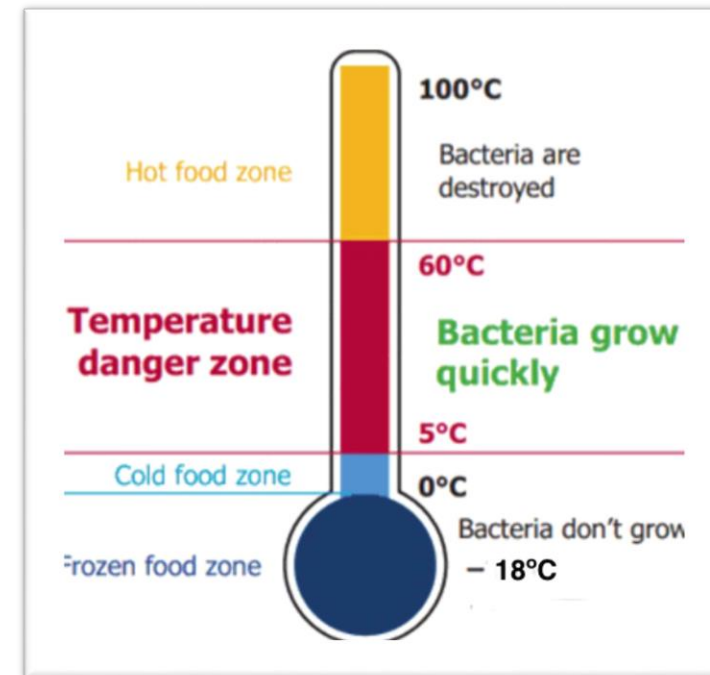


EXPIRATION DATE _____
INITIALS _____



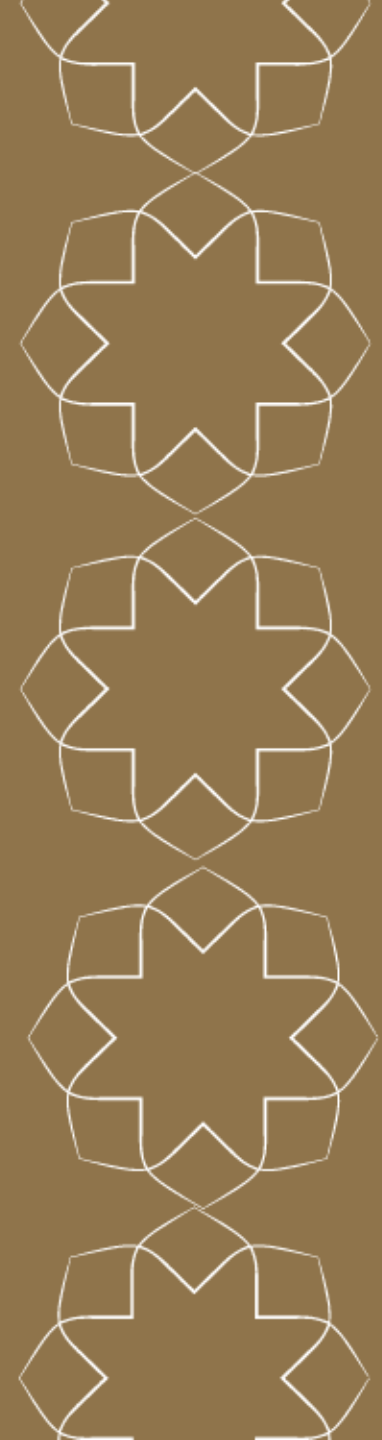
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6. COOKING

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Cooking

- It is essential to cook food thoroughly (up to 70C for 2 minutes) to kill most of the harmful bacteria

Cooking does not eliminate all bacteria; it reduces it's count to a safe level



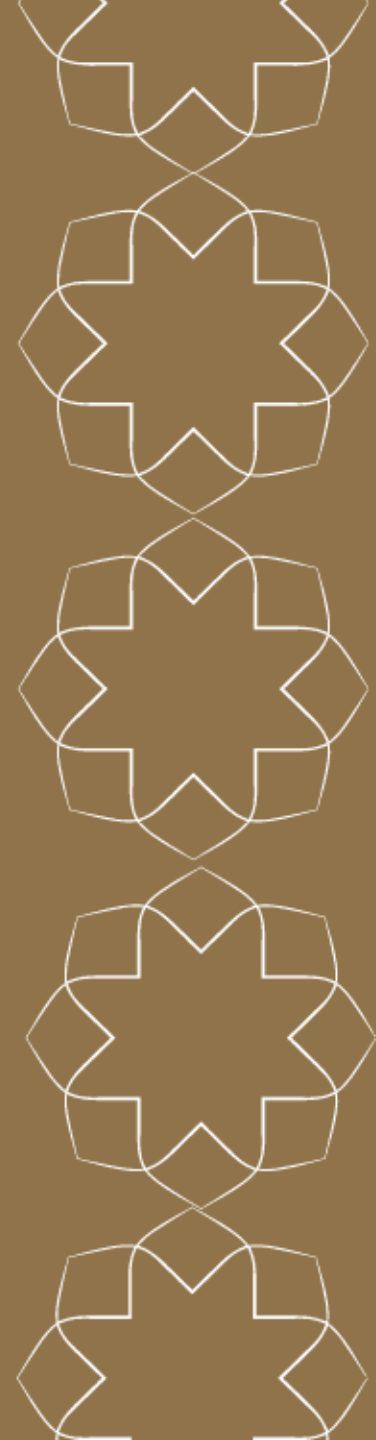
- It is very important to reheat food properly to kill harmful surviving bacteria that may have grown since the food was cooked at 70C for 2 minutes.
- If you need to keep the food hot before serving, you should use suitable hot holding equipment to maintain the food temperature above 60 C for 2 hours maximum.

Cooking Safely

Food item	Part to Check	Safety Points
Minced meat e.g. sausages and burgers	Throughout	Thoroughly cooked with no pink or red in center Juice is clear and not blood-stained
Red meat/ Steak	Surface	Changed color from red to brown Can be served rare only upon guest requests
Liquid dishes	Throughout	Bubbling throughout when stirred
Whole Chicken	Thickest part of the leg should be checked	Should change from pink to white Juices should not have any pink or red in them
Rolled meat joint	Insert a skewer into the center until juices run out	Juices should not have any pink or red in them

7. CHILLING

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Chilling

Chilling food properly helps stop/prevent harmful bacteria from growing or multiplying

Some foods need to be kept chilled to keep them safe, such as **salads, milk and cream, desserts, cooked food** which will not be served immediately and food that says keep refrigerated on the label.



- ✓ Fridges and chilled display equipment should be set at below 5C.
- ✓ Avoid overloading the fridge. Overloading will prevent air circulation.

Options for Chilling Down Hot Food:

- ✓ Divide food into smaller portions and put in small shallow pans or containers with large surface area and cool under running cold water.
- ✓ Ice bath: put in a pan and put the pan on ice bath, ice should not come in contact with the food.
- ✓ Blast chiller: Cools down the hot food to below 3C within 90 minutes.



Options for Defrosting Food:

- ✓ Defrost frozen food in the fridge.
- ✓ Under cold running water below 21C
- ✓ Microwave: defrost setting



Freezing:

- ✓ Put frozen food in the freezer at -18C as soon as it is delivered/received.
- ✓ Freeze hot food as soon as it has been properly chilled down/use blast
- ✓ Freezing does not kill bacteria, it prevents bacteria from multiplication.

Freezer:

- ✓ Divide food into smaller portions and put it in containers or in freezer bags before freezing.

Freezing:

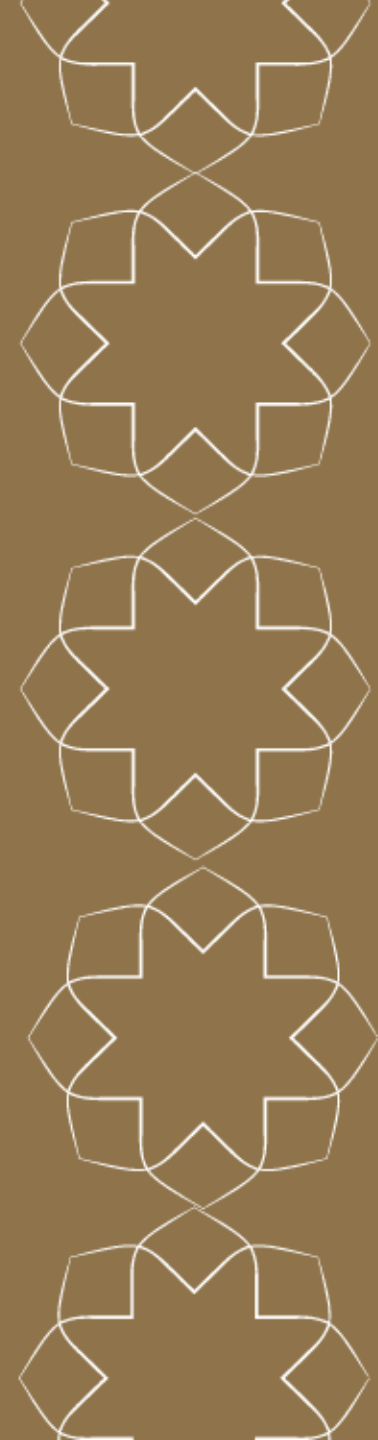
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Freezer:

- ✓ Divide food into smaller portions and put it in containers or in freezer bags before freezing.

8. CLEANING

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High and Low Risk Cleaning

Are these cleaning tasks high risk or low risk? •

- Chopping board **H**
- Door **L**
- Door handle **H**
- Taps **H**
- Floor **L**
- Wall **L**
- Sink **H**
- Fridge **H**
- Food surface **H**
- Oven **L**

HIGH RISK: Areas and equipment that ARE likely to spread contamination to food (or hands).

LOW RISK: Areas and equipment that are NOT likely to spread contamination to food (or hands).

High and Low Risk Cleaning

- Some cleaning tasks are more important than others
 - E.g. cleaning a food surface is more important than cleaning the floor
 - Why?
 - It touches food
 - It requires an extra cleaning step
 - Disinfection
 - Reduces bacteria to a safe level



High and Low Risk Cleaning

- Cleaning low risk areas and equipment



- Cleaning high risk areas and equipment



Disinfection Methods

- Options include...
 - Wash with detergent, then add chemical disinfectant, then dry
 - Use an all-in-one cleaning product that washes and disinfects
 - e.g. Sanitiser
 - Wash with detergent in a hot dishwasher
 - Very hot water acts as a disinfectant



Q&A: Food Storage

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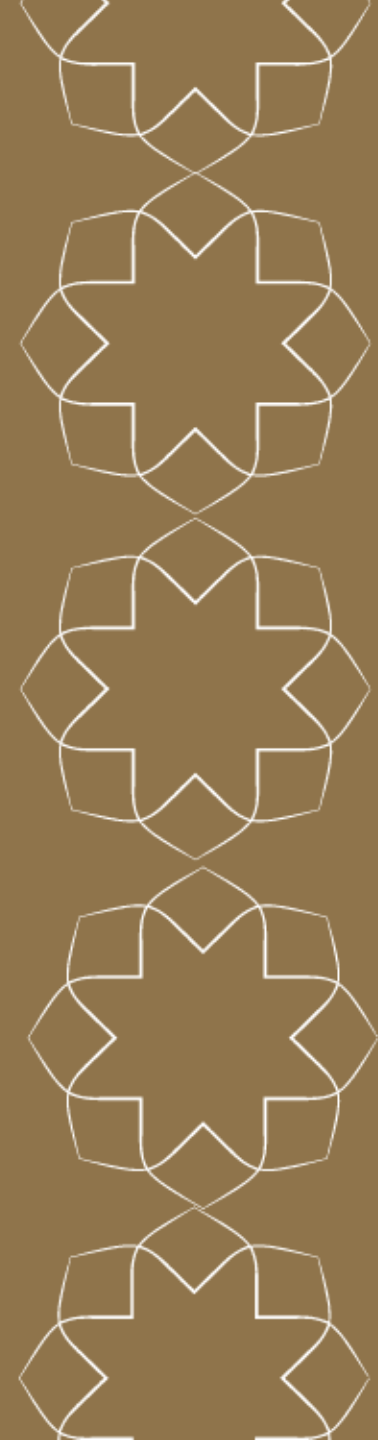
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 - Remember FIFO – first in, first out!



9. PEST CONTROL

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Pest Control

Pests is any Organism that spreads disease, cause destruction or is otherwise a nuisance.

Examples of Pest

- Rats
- Mice
- Cockroach
- Flies
- Birds
- Ants
- Insects



Q&A: Pest Control

- Whose responsibility is pest control?
- Did you think of the following:
 - **Pest control contractor** – application of chemicals and baits, and response to outbreaks.
 - **You** – dealing with contractor, development of a policy on internal pest checks and training of employees.
 - **Your Family – Roommate** – knowing what to look out for and informing manager if they see any signs.



Q&A: Pest Control

- Pests carry many bacteria
 - How can you prevent pests in your kitchen?
- Did you cover the following:
 - House Buliding
 - Maintenance
 - Waste management
 - Cleaning
 - Pest checks
 - Pest control contractor



Quick Pest Test (True or False)

1. Pests are a source of microbiological contamination **T**
2. Pest contractors have full responsibility for pest control **F**
3. Spider webs are a sign of flies **T**
4. Mice have a weak bladder **T**
5. Food handlers shouldn't use pest control chemicals **T**
6. Only dirty premises are at risk from pests **F**

Signs of Pests

- How do you know pests are in your house?
- What would give you clues that you might have:
 - Rodents?
 - Cockroaches?
 - Flies?
 - Spiders?
 - Ants?
 - How many can you think of?



Signs of Pests

Signs of Pests

- Live or dead bodies e.g. larvae & eggs
- Droppings, nests and webbing
- Damage including bite marks, holes in boxes
- Spillage adjacent to sacks of food
- Unusual smells
- The loss of small amounts of food



Pest Control

- Effective pest control is essential to keep pests out of food premises and prevent them from spreading harmful microbes.
- Check your kitchen and stores regularly for signs of pests.
- Check deliveries thoroughly for signs of pests. Do not accept a delivery if it shows sign of pests such as gnawed packaging or insects.
- Keep external areas tidy and free from weeds.
- In the event of a sighting of a pest or activity, it must be reported immediately.

Segregate, Separate and Store

- Segregate washed and unwashed
- Separate Raw and Cooked Food
- Ready to eat food must be kept above the raw food.
- Keep food covered
- Keep food equipment in good condition and sanitize before using
- Sanitize the probe thermometer before and after use.
- Do not keep carton boxes in food area
- Do not keep carton boxes in food area



Thank you

Dr. Ahmed Fawzy Moustafa